

Supplementary Table 6 - Annotated gene names from the top nr BLASTx hits of unmapped reads using Blast2GO, and also from BLASTx for genes without blast2GO annotations

Blast2GO

1-phosphatidylinositol- 4-bisphosphate phosphodiesterase gamma-1-like  
 39s ribosomal protein mitochondrial  
 a-kinase anchor protein 6  
 a-kinase anchor protein 9  
 acetylcholine receptor subunit delta-like  
 actin-binding rho-activating protein  
 adenylate cyclase type 8-like  
 alpha-2,8-sialyltransferase 8e isoform 1  
 androgen-induced gene 1  
 apoptotic protease-activating factor 1-like  
 arf-gap with ank repeat and ph domain-containing protein 1  
 arf-gap with ank repeat and ph domain-containing protein 3  
 aristaless related homeobox  
 aspartyl asparaginyl beta-hydroxylase  
 atp-dependent rna helicase a  
 atrial natriuretic peptide-converting enzyme-like  
 bah and coiled-coil domain-containing protein 1  
 bartter with sensorineural deafness  
 beta-1,4-mannosyl-glycoprotein 4-beta-n-acetylglucosaminyltransferase  
 beta-adrenergic receptor kinase 2  
 beta-citryl-glutamate synthase b  
 beta-lactamase  
 bmp-2-inducible protein kinase  
 bmp-binding endothelial regulator protein  
 breast cancer anti-estrogen resistance 1  
 c-maf-inducing protein  
 calcium-activated potassium channel subunit beta-4  
 calcium-transporting atpase type 2c member 1  
 capsid protein f  
 carboxypeptidase m  
 cell adhesion molecule 4  
 centrosomal protein of 120 kda  
 cgmp-dependent protein kinase 2  
 checkpoint protein hus1

BLASTx

1-phosphatidylinositol-4,5-bisphosphate phosphodiesterase gamma-1  
 28S ribosomal protein S9, mitochondrial  
 50 kDa midgut protein  
 5-hydroxytryptamine receptor 2C  
 ABC transporter G family member 20  
 acid phosphatase protein 2  
 adapter protein CIKS  
 adenylate cyclase type 8  
 adenylate kinase 8  
 a-kinase anchor protein 6  
 alpha-2-macroglobulin protein 1  
 amino-terminal enhancer of split  
 anthrax toxin receptor 2  
 AP-3 complex subunit beta-1  
 arf-GAP domain and FG repeats-containing protein 1  
 arf-GAP with GTPase, ANK repeat and PH domain-containing protein 1  
 arf GTPase-activating protein GIT1  
 atrial natriuretic peptide-converting enzyme  
 attractin  
 BAH and coiled-coil domain-containing protein 1  
 BCL-6 corepressor  
 beta-1,4-mannosyl-glycoprotein 4-beta-N-acetylglucosaminyltransferase  
 beta-adrenergic receptor kinase 2  
 beta-citryl-glutamate synthase B  
 breast cancer anti-estrogen resistance protein 1  
 BRICHOS domain-containing protein C16orf79  
 cadherin-24  
 calmodulin-binding transcription activator 2  
 CAP-Gly domain-containing linker protein 2  
 caskin-2  
 Cdc4p  
 cell adhesion molecule 3  
 centrosomal protein of 120 kDa  
 chordin

cholecystokinin  
chordin  
chromosome 10 open reading frame 65  
cip1-interacting zinc finger protein  
comm domain-containing protein 1  
core histone macro-H2A.1 isoform 1  
cyclic amp-dependent transcription factor atf-5  
cytokine receptor-like factor 3  
cytoplasmic polyadenylation element-binding protein 1  
dedicator of cytokinesis protein 3  
deoxycytidine kinase  
diacylglycerol kinase delta  
diacylglycerol kinase eta  
dna damage-binding protein 1  
e3 ubiquitin-protein ligase znrf1  
endothelin-converting enzyme-like 1-like  
enterohemolysin 2  
exocyst complex component 7  
extracellular matrix protein fras1  
fibroblast growth factor receptor 3  
formin-binding protein 1  
g protein-coupled receptor kinase 1-like  
g protein-coupled receptor kinase type 2  
g2 mitotic-specific cyclin-b3  
gag-pol precursor polyprotein  
glutathione s-transferase theta-1  
growth differentiation factor 5  
hepatic leukemia factor-like  
histone-lysine n-methyltransferase prdm6  
homeobox protein hox-b6  
homeobox protein nkx-  
immunoglobulin superfamily member 4b  
inositol hexakisphosphate and diphosphoinositol-pentakisphosphate kinase 1  
insulin-degrading enzyme  
intraflagellar transport protein 122 homolog  
kinase d-interacting substrate of 220 kda  
krueppel-like factor 8-like

chorion-specific transcription factor GCMb  
chromodomain-helicase-DNA-binding protein 3  
C-myc promoter-binding protein  
coiled-coil domain containing 57  
coiled-coil domain-containing protein 120  
Collectrin precursor  
COMM domain containing 10  
complement C5  
coronin-7  
CR1-3  
craniofacial development protein 1  
Cysteine and histidine-rich domain-containing protein 1  
cytohesin-4  
dachshund 2  
dachshund protein  
DC-STAMP domain-containing protein 1  
DC-STAMP domain-containing protein 2  
dedicator of cytokinesis protein 11  
dedicator of cytokinesis protein 3  
disabled 1  
disco-interacting protein 2 C  
DNA damage-binding protein 1  
DNA ligase 1  
dysferlin  
E3 ubiquitin-protein ligase pellino 1  
EH domain-binding protein 1  
EMILIN-3  
endonuclease-reverse transcriptase  
ephrin-A2  
ER degradation-enhancing alpha-mannosidase 3  
Ewing tumor-associated antigen 1  
excitatory amino acid transporter 2  
extracellular matrix protein FRAS1  
FAM131A  
FAM184B  
FAM65C  
far upstream element-binding protein 3

laminin subunit alpha-1  
 low quality protein: protein prrc2c-like  
 melanoma-associated antigen g1  
 metal transporter cnnm4-like  
 metalloendopeptidase mitochondrial-like  
 mitochondrial ribosomal protein l1  
 mitochondrial ribosomal protein s9  
 mitogen-activated protein kinase kinase kinase 7 interacting protein 1  
 myosin x  
 n-acetylaspartyl-glutamate synthetase a  
 neural retina-specific leucine zipper protein  
 neuritin precursor  
 neurofibromin isoform 1  
 neuronal pas domain-containing protein 3  
 neutral ceramidase  
 neutrophil cytosolic factor 4  
 novel protein vertebrate nebulin  
 novel protein vertebrate protein disulfide isomerase family member 5  
 nuclear factor 1 b-type-like  
 nucleoside diphosphate-linked moiety x motif 18  
 oma1 zinc metallopeptidase ( cerevisiae)  
 otu domain-containing protein 5-like  
 p protein  
 par-3 partitioning defective 3 homolog ( elegans)  
 peptidyl-prolyl cis-trans isomerase cwc27 homolog  
 phosphatidylinositol 3-kinase catalytic subunit type 3  
 phosphoribosyl pyrophosphate amidotransferase  
 phosphoribosylaminoimidazole succinocarboxamide synthetase  
 phosphoribosylformylglycinamide synthase  
 platelet endothelial aggregation receptor 1  
 plexin d1  
 pol polyprotein  
 pou class transcription factor 3-b isoform 2  
 probable 4-hydroxy-2-oxoglutarate mitochondrial-like  
 probable atp-dependent rna helicase ddx20  
 protein casc3-like  
 protein efr3 homolog a

FCH domain only protein 2  
 fibronectin type III domain-containing protein 3B  
 fibronectin type III domain-containing protein 4  
 follistatin-related protein 4  
 Forkhead box G1  
 forkhead box protein N3  
 glutamate receptor-interacting protein 1  
 G protein-coupled receptor kinase 5  
 growth inhibition and differentiation-related protein 88  
 guanine nucleotide exchange factor VAV3  
 heme-binding protein 1  
 hepatocyte nuclear factor 3-beta  
 Histone acetyltransferase MYST3  
 Histone-lysine N-methyltransferase PRDM6  
 Homeobox protein Meis2  
 homocysteine-responsive ER-resident ubiquitin domain member 1  
 Immunoglobulin G-binding protein A  
 IMPACT  
 inositol hexakisphosphate and diphosphoinositol-pentakisphosphate kinase 1 isoform 2  
 insulin-degrading enzyme  
 insulin growth factor binding protein 3  
 interleukin-17A/F-2  
 interleukin-1 receptor type II  
 intraflagellar transport protein 122  
 intraflagellar transport protein 27  
 IQ motif and SEC7 domain-containing protein 3  
 Jade-2  
 jagged-2  
 kelch protein 29  
 KH domain-containing, RNA-binding, signal transduction-associated protein 1  
 kinase D-interacting substrate of 220 kDa  
 kinesin protein KIF1C  
 Krueppel factor 5  
 kyphoscoliosis peptidase  
 laminin subunit alpha-1  
 latrophilin-2  
 LOC494675 protein

protein pthb1-like  
protein sec13 homolog  
protein spinster homolog 2-like  
protein sprouty homolog 1-like  
rap guanine nucleotide exchange factor 2  
rap guanine nucleotide exchange factor 6 isoform 2  
ras gtpase-activating protein ngap  
ras protein activator like 2  
ras suppressor protein 1  
ras-associated and pleckstrin homology domains-containing protein 1  
ras-related protein rab-21  
ras-specific guanine nucleotide-releasing factor 2-like  
regulating synaptic membrane exocytosis protein 2 isoform b  
replication-associated protein partial  
retinoic acid receptor alpha isoform 1  
retrotransposable element tf2 155 kda protein type 1-like  
retrotransposon-like family member (retr-1)-like  
rho guanine nucleotide exchange factor 1  
ribonuclease 3  
ring finger protein 114  
sam and sh3 domain-containing protein 1  
sec1 family domain-containing protein 1  
sec1 family domain-containing protein 2  
seizure related 6 homolog -like  
serine threonine-protein kinase mrck alpha  
sncaip protein  
sodium hydrogen exchanger 5-like  
sortilin-related receptor  
staphylococcal nuclease domain containing 1  
succinate dehydrogenase  
suppression of tumorigenicity 7  
synphilin-1 isoform 1  
t cell-specific transcription factor isoform c  
testican-3 isoform 1  
tgf-beta-activated kinase 1 and map3k7-binding protein 1-like  
thyrotropin-releasing hormone-degrading ectoenzyme  
toll-interacting protein

LON peptidase N-terminal domain and RING finger protein 2  
MAP7 domain-containing protein 2  
MAP kinase-activating death domain protein  
melanophilin  
metalloendopeptidase OMA1, mitochondrial  
mitochondrial carnitine/acylcarnitine carrier protein  
mitochondrial sodium/hydrogen exchanger NHA2  
mitotic checkpoint serine/threonine-protein kinase BUB1  
multiple C2 and transmembrane domain-containing protein 1  
myelin protein zero protein 1  
myosin-X  
myosin-XVIIIb  
NACHT, LRR and PYD domains-containing protein 12  
neogenin  
nephrocystin-1  
neural cell adhesion molecule L1  
neuronal PAS domain-containing protein 3  
neutrophil cytosolic factor 4  
novel protein similar to vertebrate enabled (ENAH)  
novel protein similar to vertebrate diacylglycerol kinase, delta 130kDa (DGKD)  
nuclear factor 1 A-type  
nuclear factor 1 X-type  
nuclear factor 7 ovary  
nuclear receptor corepressor 2  
osteopotential  
otogelin  
OTU domain-containing protein 4  
p40phox protein  
palladin  
parathyroid hormone-responsive B1 isoform 3  
partitioning defective 3  
perilipin-2  
phosphatidylinositol-4-phosphate 3-kinase C2 domain-containing subunit beta  
phosphatidylinositol-binding clathrin assembly protein  
phosphatidylserine synthase 2  
phosphofurin acidic cluster sorting protein 1  
plexin-B1

transcription factor 7-like 2  
transcription factor gata-3  
transcription factor sox-13  
transcription factor sox-5  
transmembrane protein 145  
transmembrane protein 8c-like  
transposable element tcb1 transposase  
transposase  
tryptophanyl-trna mitochondrial-like  
ubiquitin carboxyl-terminal hydrolase 24  
vesicle-associated membrane protein 4  
vitellogenin  
voltage-dependent p q-type calcium channel subunit alpha-1a  
voltage-dependent t-type calcium channel subunit alpha-1i-like  
wd repeat domain isoform cra\_b  
wd repeat-containing and planar cell polarity effector protein fritz homolog  
wd repeat-containing protein 3  
wdhd1 protein  
zinc finger and btb domain-containing protein 46  
zinc finger e-box-binding homeobox 2-like isoform 2  
zinc finger protein 536  
zinc ring finger protein 3  
zinc transporter slc39a7

plexin-D1  
pol polyprotein  
polypeptide N-acetylgalactosaminyltransferase 10  
polypeptide N-acetylgalactosaminyltransferase 3  
polyphosphate kinase 2 family  
potassium voltage-gated channel subfamily A member 4  
potassium voltage-gated channel subfamily D member 1  
POU domain class 2-associating factor 1  
P protein  
probable E3 ubiquitin-protein ligase HERC1  
probable G-protein coupled receptor 153  
probable RNA-binding protein 46  
progesterone-induced-blocking factor 1  
protocadherin-15  
proto-oncogene Wnt-3  
PTHB1  
pumilio 2  
purine-rich element-binding protein gamma  
ralBP1-associated Eps domain-containing protein 2  
rap guanine nucleotide exchange factor 6  
ras GTPase-activating protein nGAP  
ras guanine nucleotide exchange factor F  
recombining binding protein suppressor of hairless protein  
retrotransposable element Tf2 155 kDa protein type 1  
RETrotransposon family member (retr-1)  
retrovirus-related Pol polyprotein LINE-1  
reverse transcriptase  
rho GTPase-activating protein 17  
rho GTPase-activating protein 6  
ribonuclease 3  
RING finger protein 214  
RNA binding protein fox-1 2  
RRNAD1  
S-antigen protein  
sec1 family domain-containing protein 1  
sec1 family domain-containing protein 2  
senescence-associated protein

sentrin-specific protease 7  
serine/threonine-protein kinase BRSK2  
serine/threonine-protein kinase ULK4  
serine/threonine-protein kinase WNK1  
SH2B adapter protein 1  
SH2 domain-containing protein 5  
SH3 and multiple ankyrin repeat domains protein 2  
SH3 and multiple ankyrin repeat domains protein 3  
shisa-6  
si:dkey-100n23.5  
slit 2 protein  
snRNA-activating protein complex subunit 4  
sodium channel protein type 3 subunit alpha  
sodium/hydrogen exchanger 1  
sodium/hydrogen exchanger 5 precursor  
solute carrier family 35 member D3  
solute carrier family 35 member F3 isoform 2  
sortilin-related receptor  
SPARC-related modular calcium-binding protein 2  
Spermatogenesis-associated protein 2  
stromelysin-3  
synphilin-1  
T-box transcription factor TBX15  
T-cell leukemia homeobox protein 1  
T-cell receptor alpha chain V region 2B4 precursor  
tetratricopeptide repeat protein 16  
TGF-beta-activated kinase 1 and MAP3K7-binding protein 1  
thymus-specific serine protease  
thyroglobulin  
thyroid adenoma-associated protein  
thyrotropin-releasing hormone-degrading ectoenzyme  
toll-interacting protein  
toll-interacting protein A  
tomoregulin-1  
TOX high mobility group box family member 3  
transcription factor 7 2  
transmembrane and TPR repeat-containing protein 2

transmembrane protein 145  
tRNA-specific adenosine deaminase 1  
TSSC1  
tumor necrosis factor ligand superfamily member 10  
tumor necrosis factor ligand superfamily member 11  
tumor protein 63 isoform 2  
tumor protein p53-inducible nuclear protein 2  
ubinnuclein-1  
ubiquitin-conjugating enzyme E2, J1  
UPF0249 protein ydjC  
vacuolar protein sorting-associated protein 13B  
VHSV-induced protein  
voltage-dependent L-type calcium channel subunit alpha-1F  
voltage-dependent L-type calcium channel subunit beta-3  
voltage-dependent P/Q-type calcium channel subunit alpha-1A  
voltage-gated potassium channel subunit beta-3  
WD repeat-containing and planar cell polarity effector protein fritz  
wiskott-Aldrich syndrome protein family member 3  
xin actin-binding repeat-containing protein 2  
zinc finger and BTB domain-containing protein 46  
zinc finger E-box-binding homeobox 2 isoform 1  
zinc finger HIT domain-containing protein 1  
zinc finger MYM-type protein 1  
zinc finger protein 313  
zinc finger protein 704  
zinc finger protein 865  
zinc ring finger protein 3  
Zygotic DNA replication licensing factor mcm6-B